Rules and Regulations for the Classification of Naval Ships, January 2012

Notice No. 2

Effective Date of Latest Amendments:

See page 1

Issue date: July 2012

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RULES AND REGULATIONS FOR THE CLASSIFICATION OF NAVAL SHIPS, *January 2012*

Notice No. 2

This Notice contains amendments within the following Sections of the *Rules and Regulations for the Classification of Naval Ships, January 2012.* The amendments are effective on the dates shown:

Volume	***Part***	***Chapter***	***Section***	***Effective date***
2	2	1	7	1 January 2013
2	3	1	2	Corrigendum
2	7	3	8	1 January 2013
2	7	5	11	1 January 2013
2	11	3	1	1 January 2013

It will be noted that the amendments also include corrigenda, which are effective from the date of this Notice.

The *Rules and Regulations for the Classification of Naval Ships, January 2012* are to be read in conjunction with this Notice No. 2. The status of the Rules is now:

Rules for Naval Ships	Effective date:	January 2012
Notice No. 1	Effective date:	1 January 2013 & Corrigenda
Notice No. 2	Effective date:	1 January 2013 & Corrigendum

Volume 2, Part 2, Chapter 1

Diesel Engines

Effective date 1 January 2013

■ *Section 7*
Air compressors and starting arrangements

7.11 Dead ship condition starting arrangements

7.11.3 Dead ship condition starting is to be possible in all ambient operating conditions defined in Pt 1, Ch 2,4.5.

Existing paragraphs 7.11.3 *and* 7.11.4 *have been renumbered* 7.11.4 *and* 7.11.5.

Volume 2, Part 3, Chapter 1

Gearing

CORRIGENDUM

■ *Section 2*
Principles

2.3 Enhanced analysis principles

(*Part only shown*)
2.3.3 Gear elements are to be analysed using ISO 6336 with the following additions:

(a) The face load factor for contact stress (K_{Hmesh}) is to be calculated using an acceptable validated analytical meshing model and used in place of the equivalent factor ($K_{H\beta}$ x $K_{H\alpha}$) given in ISO 6336. The actual factor of safety against surface failure is effectively adjusted as follows:

~~$S_H = S_{HISO}\dfrac{K_{H\beta}.K_{H\alpha}}{K_{Hmesh}}$ (to exceed 1,4)~~

$$S_H = S_{HISO}\sqrt{\frac{K_{H\beta}.K_{H\alpha}}{K_{Hmesh}}} \quad \text{(to exceed 1,4)}$$

Volume 2, Part 7, Chapter 3

Machinery Piping Systems

Effective date 1 January 2013

■ *Section 8* Lubricating oil systems

8.1 General requirements

~~*8.1.1* In addition to the requirements detailed in this Section, the requirements of Sections 2 and 4 are to be complied with in so far as they are applicable. In all cases 2.9.1 to 2.9.3 and 4,2, 4.3, 4.5, 4.8, 4.11 and 4.16 are to apply.~~

8.1.1 The arrangements for storage, distribution and utilisation of lubricating oils are to comply with the requirements of this Section.

8.3 Control of pumps

8.3.1 The power supply to all independently driven lubricating oil transfer and pressure pumps is to be capable of being stopped from a position outside the space, which will always be accessible in the event of fire occurring in the space in which the pumps or pump compartment are situated.

8.4 Relief valves on pumps

8.4.1 All lubricating oil pumps which are capable of developing a pressure exceeding the design pressure of the system are to be provided with relief valves or equivalent. Each relief valve is to be in closed circuit, i.e., arranged to discharge back to the suction side of the pump, thereby limiting the pump discharge pressure to the design pressure of the system.

8.4.2 Where centrifugal type lubricating oil pumps are fitted, pressure relief valves will not be required provided that pipes, valves and fittings are suitable for the greater of the design pressure or pump non-delivery pressure.

Existing sub-Sections 8.3 *to* 8.6 *have been renumbered* 8.5 *to* 8.8.

8.9 Filling arrangements

8.9.1 Filling stations are to be isolated from other spaces and are to be efficiently drained and ventilated.

8.9.2 Provision is to be made against over-pressure in the filling pipelines. Any relief valve fitted for this purpose is to discharge to an overflow tank or other safe position and is to be sized to allow full flow of supply through the relief valve without over-pressuring the upstream pipe work.

Existing sub-Section 8.7 *has been renumbered* 8.10.

8.11 Pipes conveying oil

8.11.1 Pipes conveying lubricating oil under pressure are to be of seamless steel or other approved material having flanged or welded joints, and are to be placed in sight above the platform in well lit and readily accessible parts of the machinery spaces. The number of flanged joints is to be kept to a minimum.

8.11.2 For requirements relating to flexible hoses, *see* Ch 1,13.

Existing sub-Sections 8.8 *to* 8.10 *have been renumbered* 8.12 *to* 8.14.

~~8.11~~ 8.15 Deep tank valves and their control arrangements

Existing paragraphs 8.11.1 *and* 8.11.2 *have been renumbered* 8.15.1 *and* 8.15.2.

8.15.3 Every lubricating oil suction pipe from a storage, settling and service tank situated above the double bottom, and every oil levelling pipe within the engine room, is to be fitted with a valve or cock secured to the tank.

8.15.4 Valves and cocks are to be capable of being closed locally and from positions outside the space in which the tank is located. The remote controls are to be accessible in the event of fire occurring in the deep tank's space. Instructions for closing the valves or cocks are to be indicated at the valves and cocks and at the remote control positions.

8.15.5 In the case of tanks of less than 500 litres capacity, consideration will be given to the omission of remote controls.

8.15.6 Every lubricating oil suction pipe which is led into the engine space from a tank situated above the double bottom outside this space is to be fitted in the machinery space with a valve controlled as in 8.15.4, except where the valve on the tank is already capable of being closed from an accessible position above the bulkhead deck.

8.15.7 Where the filling pipes to deep lubricating oil tanks are not connected to the tanks near the top, they are to be provided with non-return valves at the tanks or with valves or cocks, fitted and controlled as in 8.15.4.

8.16 Separate oil tanks

8.16.1 On completion, the tanks are to be tested by a head of water equal to the maximum to which the tanks may be subjected.

Volume 2, Part 7, Chapter 5

Ship Type Piping Systems

Effective date 1 January 2013

■ *Section 11*
Hydraulic power actuating systems

11.1 General

11.1.2 The arrangements for storage, distribution and utilisation of hydraulic and flammable oils employed under pressure in power transmission systems, control and actuating systems, heating systems and hydraulic media in systems which are providing essential services, are to comply with the ~~provisions of Ch 3, 2.9.3, 2.9.4, 2.9.5, 4.2, 4.3, 4.5, 4.11 and 4.16 where applicable~~ requirements of this Section.

~~*11.1.7* Piping systems for flammable hydraulic fluids are to be installed to avoid fluid spray or leakage onto hot surfaces, into machinery air intakes, or other sources of ignition such as electrical equipment. Pipe joints are to be kept to a minimum, and where provided, are to be of a type acceptable to LR. Pipes are to be led in well lit and readily visible positions.~~

11.6 Relief valves on pumps

11.6.1 All pumps which are capable of developing a pressure exceeding the design pressure of the system are to be provided with relief valves. Each relief valve is to be in closed circuit, i.e., arranged to discharge back to the suction side of the pump and effectively to limit the pump discharge pressure to the design pressure of the system.

11.7 Pipes conveying oil

11.7.1 Piping systems for flammable hydraulic fluids are to be installed to avoid fluid spray or leakage onto hot surfaces, into machinery air intakes, or other sources of ignition such as electrical equipment. Pipe joints are to be kept to a minimum, and where provided, are to be of a type acceptable to LR. Pipes are to be led in well-lit and readily visible positions.

11.7.2 Pipes conveying hydraulic oil under pressure are to be of seamless steel or other approved material having flanged or welded joints, and are to be placed in sight above the platform in well lit and readily accessible parts of the machinery spaces. The number of flanged joints is to be kept to a minimum.

11.7.3 For requirements relating to flexible hoses, *see* Ch 1,13.

11.8 Filling arrangements

11.8.1 Filling stations are to be isolated from other spaces and are to be efficiently drained and ventilated.

11.8.2 Provision is to be made against over-pressure in the filling pipelines. Any relief valve fitted for this purpose is to discharge to an overflow tank or other safe position and is to be sized to allow full flow of supply through the relief valve without over-pressuring the upstream pipe work.

11.9 Separate oil tanks

11.9.1 On completion, the tanks are to be tested by a head of water equal to the maximum to which the tanks may be subjected.

11.10 Precautions against fire

11.10.1 Hydraulic oil tanks and filters are not to be situated immediately above boilers or other highly heated surfaces.

11.10.2 Hydraulic oil pipes are not to be installed above or near high-temperature equipment. Hydraulic oil pipes should also be installed and screened or otherwise suitably protected, to avoid oil spray or oil leakages onto hot surfaces, into machinery air intakes, or other sources of ignition such as electrical equipment. Pipe joints are to be kept to a minimum and where provided are to be of a type acceptable to LR. Pipes are to be led in well lit and readily visible positions.

11.10.3 Pumps, filters and heaters are to be located to avoid hydraulic oil spray or leakage onto hot surfaces or other sources of ignition or onto rotating machinery parts. Where necessary, shielding is to be provided and the arrangements are to allow easy access for routine maintenance. The design of filter and strainer arrangements is to be such as to avoid the possibility of them being opened inadvertently when under pressure. This may be achieved either by mechanically preventing the pressurised filter from being opened or by providing pressure gauges which clearly indicate which filter is under pressure. In either case, suitable means for pressure release are to be provided, with drain pipes led to a safe location.

Volume 2, Part 11, Chapter 3

Waste Systems

Effective date 1 January 2013

■ *Section 1*
General requirements

1.1 General

1.1.4 ~~Where required by the Naval Authority, all Regulations of MARPOL Annex IV and Annex V are to be complied with.~~ The requirements of MARPOL Annex IV and Annex V are to be complied with, unless otherwise agreed by the Naval Authority. Where the Naval Authority opts to not apply MARPOL Annex IV or MARPOL Annex V then this is to be recorded in the tailoring document, *see* Vol 1, Pt 1, Ch 2,3.11.

Part 6, Chapter 4

Section numbering in brackets reflects any Section renumbering necessitated by any of the Notices that update the current version of the Rules for Naval Ships.

Volume 2, Part 3, Chapter 1

7.8.5 *Reference* Pt 7, Ch 3,8.10.2 *now reads* Pt 7, Ch 3,8.14.2.

Volume 2, Part 4, Chapter 4

6.5.3 *Reference* Pt 7, Ch 3,8.9.6 *now reads* Pt 7, Ch 3,8.13.6.

Volume 3, Part 1, Chapter 2

3.5.4 *Reference* Vol 2, Pt 7, Ch 3,8.3 *now reads* Vol 2, Pt 7, Ch 3,8.5.

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